

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In Compliance with Montana Code Annotated (MCA) Section 75-5-101 *et seq.* and ARM Title 17, Chapter 30, Subchapters 5, 6, 7, and 13.

Powder River Gas, LLC

is authorized to discharge from its **Coal Creek Development Unit**,

to receiving waters named, **Tongue River**,

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit. Specified load allocations support and serve to define total maximum daily loads for the receiving waters affected.

This permit shall become effective on the **January 1, 2005**.

This permit and the authorization to discharge shall expire at midnight, **December 31, 2010**.

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Bonnie Lovelace, Chief
Water Protection Bureau

ISSUED: _____

TABLE OF CONTENTS

- I. Effluent Limitations and Monitoring Requirements
 - A. Description of Discharge Points
 - B. Specific Effluent Limitations
 - C. Self-Monitoring Requirements
 - D. Special Conditional
- II. Monitoring Recording and Reporting Requirements
 - A. Representative Sampling
 - B. Monitoring Procedures
 - C. Penalties for Tampering
 - D. Reporting of Monitoring Results
 - E. Compliance Schedules
 - F. Additional Monitoring by the Permittee
 - G. Records Contents
 - H. Retention of Records
 - I. Twenty-four Hour Notice of Noncompliance Reporting
 - J. Other Noncompliance Reporting
 - K. Inspection and Entry
- III. Compliance Responsibilities
 - A. Duty to Comply
 - B. Penalties for Violations of Permit Conditions
 - C. Need to Halt or Reduce Activity not a Defense
 - D. Duty to Mitigate
 - E. Proper Operation and Maintenance
 - F. Removed Substances
 - G. Bypass of Treatment Facilities
 - H. Upset Conditions
 - I. Toxic Pollutants
 - J. Changes in Discharge of Toxic Substances
- IV. General Requirements
 - A. Planned Changes
 - B. Anticipated Noncompliance
 - C. Permit Actions
 - D. Duty to Reapply
 - E. Duty to Provide Information
 - F. Other Information
 - G. Signatory Requirements
 - H. Penalties for Falsification of Reports
 - I. Availability of Reports
 - J. Oil and Harardous Substance Liability
 - K. Property or Water Rights
 - L. Severability
 - M. Transfers
 - N. Fees
 - O. Reopener Provisions
- V. Definitions

I. EFFLUENT - LIMITATIONS AND MONITORING REQUIREMENTS

A. Description of Discharge Points

The authorization to discharge provided under this permit is limited to those outfalls specially designated below as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

Outfall

Serial Number Description of Discharge Point

001	At the end of the discharge pipe emptying to the Tongue River, located approximately 45 ° 8' 45" N latitude, 106° 45' 28" W longitude. Subject to the conditions specified in Section 1.D, the mixing zone shall not exceed: 25 feet downstream from the point of discharge from the effluent diffuser to the Tongue River for the following parameters: temperature, pH, fluoride, dissolved aluminum.
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B. Specific Effluent Limitations

Effective immediately and lasting through the term of the permit, the quality of effluent discharged through Outfall 001 shall, as a minimum, meet the limitations as set forth below:

The following effluent limitations apply to Outfall 001 January 1 – December 31:

Parameter, units	Concentration ⁽¹⁾	
	Daily Maximum Limit	Monthly Average Limit
Total Suspended Solids, mg/L	30	25
Cadmium, µg/L	0.48	0.054
Selenium, µg/L	3.0	0.75
⁽¹⁾ See the definitions in Part I.A for explanation of terms.		
⁽²⁾ Calculations are based on the 30-day average values of flow and concentration.		

Other Discharge Limitations:

1. The instantaneous pH shall remain between 6.5 and 8.4 standard units.
2. The instantaneous discharge rate (volume) of the effluent shall not exceed 1,122 gpm.
3. The concentration of mercury, radium and arsenic in the effluent, prior to mixing with the receiving water shall not exceed the concentration of these parameters as measured in the Tongue River upstream of the point of discharge.
4. The effluent is composed entirely of produced water from coal bed methane development; no sewage, industrial or other wastes may be added to the treatment system.
5. The concentration of oil and grease shall not exceed 10 mg/L.

Seasonal Limitations:

The following effluent limitations apply to Outfall 001 March 1 thru October 31:

Parameter, units	Concentration ⁽¹⁾	
	Daily Maximum Limit	Monthly Average Limit
Specific Conductance, $\mu\text{S/m}$	1,500	1,000
Sodium Adsorption Ratio (SAR)	4.5	3.0
⁽¹⁾ See the definitions in Part I.A for explanation of terms.		
⁽²⁾ Calculations are based on the 30-day average values of flow and concentration.		

The percentage of untreated produced water shall not exceed 10% of the produced water deliver to the facility.

The following effluent limitations apply to Outfall 001 November 1 thru the last day of February:

Parameter, units	Concentration ⁽¹⁾	
	Daily Maximum Limit	Monthly Average Limit
Specific Conductance, $\mu\text{S/m}$	2,500	1,500
Sodium Adsorption Ratio (SAR)	7.5	5.0
⁽¹⁾ See the definitions in Part I.A for explanation of terms.		
⁽²⁾ Calculations are based on the 30-day average values of flow and concentration.		

The percentage of untreated produced water shall not exceed 10% of the produced water deliver to the facility.

Blending of treated and untreated wastewater that does not exceed that percentage specified in this Part is not considered bypass of treatment under Part IV.G of the permit.

C. Self-Monitoring Requirements

1. Wastewater Discharge Monitoring - Outfall 001

- a. As a minimum, upon the effective date of this permit, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form (EPA No. 3320-1) that no discharge or overflow occurred.

Table 1.

Parameter	Frequency⁽¹⁾	Sample Type⁽²⁾	Minimum Level
Effluent Flow Rate, gpm	Continuous	Instantaneous ⁽³⁾	⁽⁴⁾
Influent Flow Rate, gpd	Continuous	Instantaneous ⁽³⁾	⁽⁴⁾
Flow, By-Passing Treatment Unit, gpd	Continuous	Instantaneous ⁽³⁾	⁽⁴⁾
Treatment Unit Bypass, Max., Percent	Daily	Calculated	NA
pH, SU	Daily	Instantaneous	0.1
Specific Conductivity, μ S/cm	Daily	Instantaneous	10
Sodium, mg/L	Weekly	Composite	1.
Calcium, mg/L	Weekly	Composite	1.
Magnesium, mg/L	Weekly	Composite	1.
Total Dissolved Solids, mg/L	Weekly	Composite	10
Sodium Adsorption Ratio, (SAR)	Weekly	Calculate	0.1
Total Suspended Solids, mg/L	Weekly	Grab	10
Cadmium, Total Recoverable, mg/L	Monthly	Grab	0.0001
Selenium, Total Recoverable, mg/L	Monthly	Grab	0.001
Arsenic, Total Recoverable, mg/L	Monthly	Grab	0.001
Mercury, Total Recoverable, mg/L	Monthly	Grab	0.0001
Radium, Total, pCi/L	Monthly	Grab	0.1
Footnotes: (1) Refers to the frequency of observation or measurement. (2) See the definitions in Part I.A. of the permit. (3) Requires the use of recording device or totalizing device. (4) Part II.B requires that flow measurements must be within 10% of the measured flow.			

b. Compliance Determination

For the parameters monitored in this Section (C.1), the following procedures shall be followed:

1. Average Monthly Limit (AML) or 30-day Average is the arithmetic mean of all samples collected during the calendar month, as defined in Part V.I.A of the permit. If only one sample is collected in the calendar month then the results of this sample are reported as the AML and shall be reported on the DMR form. Analytical results that are less than the minimum levels (ML) specified in Table 1 and 2 are reported on the DMR as zero or, if calculating a monthly average, the value of "0" is used to calculate the AML.

2. For the term of the permit, the permittee shall submit an annual report demonstrating compliance with Condition 3 (Section I.B), for mercury, arsenic and radium. The effluent shall be considered in compliance with this limit if the concentration in the effluent does not exceed the upstream concentration as measured by one-sided Wilcoxon signed rank test at the 99 percent level of confidence ($p < 0.01$) (Helsel and Hirsh, 1995, or equivalent) for the calendar year. Sample pair shall be by month. A nonparametric test is employed because it is expected that most of these sample results will be below the limit of detection. For ambient samples the permittee may employ a detect limit below the minimum level established in Table 1 and 3. The report shall be submitted in accordance with Part II and IV.G of the permit. If the results of this analysis indicate a significant increase in the concentration in the effluent the Department may reopen the permit in accordance with Part I.V (of the permit) and establish and effluent limit.

c. Supplemental Effluent Monitoring – Outfall 001

The permittee will be required to monitor the effluent at the frequency listed in Table 2 during the first 2 years after the effective date of this permit and in year 4 of the permit (prior to permit renewal).

Table 2.

Parameter⁽³⁾	Frequency⁽¹⁾	Sample Type⁽²⁾	Minimum Level
Temperature, °C	Weekly	Instantaneous	1
Nitrite + Nitrate, as N, mg/L	Monthly	Grab	0.05
Kjeldahl Nitrogen, Total, as N, mg/L	Monthly	Grab	0.1
Ammonia, as N, mg/L	Monthly	Grab	0.05
Total Nitrogen, mg/L ⁽⁵⁾	Monthly	Calculate	0.1
Phosphorous, Total, mg/L	Monthly	Grab	0.01
Biochemical Oxygen Demand, mg/L	Semi Annual	Composite	5
Chemical Oxygen Demand, mg/L	Semi Annual	Composite	10
Total Organic Carbon, mg/L	Semi Annual	Composite	0.5
Radioactivity, Alpha-Total, pCi/L	Semi Annual	Composite	1
Radioactivity, Beta-Total, pCi/L	Semi Annual	Composite	1
Fluoride, mg/L	Semi Annual	Composite	1
Aluminum, Dissolved, mg/L	Semi Annual	Composite	0.01
Barium, Total Recoverable, mg/L	Semi Annual	Composite	0.01
Boron, Total Recoverable, mg/L	Semi Annual	Composite	0.01
Copper, Total Recoverable, mg/L	Semi Annual	Composite	0.001
Iron, Dissolved, mg/L	Semi Annual	Composite	0.01
Iron, Total Recoverable, mg/L	Semi Annual	Composite	0.01
Lead, Total Recoverable, mg/L	Semi Annual	Composite	0.001
Strontium, Total Recoverable, mg/L	Semi Annual	Composite	0.1
Manganese, Total Recoverable, mg/L	Semi Annual	Composite	0.01
Zinc, Total Recoverable, mg/L	Semi Annual	Composite	0.01
Phenols, Total, mg/L	Semi Annual	Grab	0.1
Cyanide, Total, mg/L	Semi Annual	Grab	0.005
Oil & Grease, mg/L	Semi Annual	Grab	1
Toxicity, chronic ⁽⁴⁾	Quarterly ⁽⁶⁾	Composite	NA
Footnotes: (1) Refers to the frequency of observation or measurement. (2) See the definitions in Part I.A. of the permit. (3) The parameter must be monitored in the first two years after the effective date of the permit and in the fourth year of the permit. (4) Chronic test shall utilize Flathead Minnow (<i>Pimephales promelas</i>) EPA Method 1000.0 and <i>Ceriodaphnia dubia</i> , EPA Method 1002.0. (5) Total nitrogen is sum of Kjeldahl nitrogen and nitrite plus nitrate nitrogen. (6) If no chronic or acute toxicity is observed for four consecutive calendar quarters, testing may be reduced to alternating one species quarterly testing. Test results shall be reported along with DMR for the end of the calendar period for which the testing was conducted. The format for the report shall be consistent with the August 1997 Region VIII Guidance for Chronic Whole Effluent Reporting and shall include all physical testing specified. NA – Not Applicable			

d. Instream Monitoring

The permittee is required to conduct upstream monitoring for the following parameters and at the frequencies listed below. The location shall be permanently marked in the field at a distance upstream of the discharge not more than 0.5 miles outside of the area influenced by the discharge. Within 60 days of the effective date of this permit, the permittee shall notify the Department in writing of the exact sample location (latitude, longitude and physical description).

Table 3.

Parameter	Frequency ⁽¹⁾	Sample Type ⁽²⁾	Minimum Level
pH, SU	Monthly	Instantaneous	0.1
Temperature, °C	Monthly	Instantaneous	1
Specific Conductivity, µS/cm	Monthly	Instantaneous	10
Sodium Adsorption Ratio, SAR ⁽³⁾	Monthly	Calculate	0.1
Sodium, mg/L	Monthly	Grab	1
Total Dissolved Solids, mg/L	Monthly	Grab	10
Cadmium, Total Recoverable, mg/L	Monthly	Grab	0.0001
Selenium, Total Recoverable, mg/L	Monthly	Grab	0.001
Arsenic, Total Recoverable, mg/L	Monthly	Grab	0.001
Barium, Total Recoverable, mg/L	Monthly	Grab	0.01
Mercury, Total Recoverable, mg/L	Monthly	Grab	0.0001
Radium, Total, pCi/L	Monthly	Grab	0.1
Copper, Total Recoverable, mg/L	Monthly	Grab	0.001
Lead, Total Recoverable, mg/L	Monthly	Grab	0.001
Strontium, Total Recoverable, mg/L	Monthly	Grab	0.1
Nitrite + Nitrate, as N, mg/L	Monthly	Grab	0.01
Kjeldahl Nitrogen, Total, as N, mg/L	Monthly	Grab	0.1
Ammonia, as N, mg/L	Monthly	Grab	0.05
Total Nitrogen, mg/L	Monthly	Calculate ⁽⁴⁾	0.1
Phosphorous, Total, mg/L	Monthly	Grab	0.001
Footnotes:			
(1) Refers to the frequency of observation or measurement.			
(2) See the definitions in Part I.A. of the permit.			
(3) Requires concurrent analysis of calcium and magnesium; this data is not required to be submitted.			
(4) Total nitrogen is sum of Kjeldahl nitrogen and nitrite plus nitrate nitrogen.			

D. Special Conditions

1. Prior to construction of the treatment works, the permittee shall submit a line drawing, plans or specifications in sufficient detail for the Department to determine how the permittee will monitor flow and sample the effluent in accordance with the terms of this section, specifically Tables 1 & 2. This report is subject to Department approval pursuant to Part II, III and IV of the permit.

2. The permittee shall develop a quality assurance, quality control (QA/QC) plan for monitoring flow and sampling the effluent in accordance with the terms and conditions of the permit. The plan shall also address instream monitoring and other monitoring required as a condition of this permit. The permittee shall also notify the Department of the location where records required in Part II of the Permit would be kept. This plan shall be maintained onsite and made available to the operator, or other person responsible for monitoring and sampling. A copy shall be provided to the Department, for approval in accordance with Part II, III and IV of the permit.

3. Mixing Zone

- The permittee shall submit site-specific information as required in ARM 17.30.516(4) and demonstrate through the use of a suitable model (Cormix or Pumes) that the length of the mixing zone is less than two river widths at all flow conditions.

- The permittee shall submit an updated design for the effluent diffuser or demonstrate that the proposed outfall conforms to the criteria of Section IX.1.a (above).

- The applicant shall submit a water quality assessment satisfying the criteria of ARM 17.30.506(1) and (2)(a) through (f).

The permittee shall install an effluent diffuser in accordance with “*Mixing Zone Analysis for Powder River Gas MPDES Permit Number MT-0030660 Treated Water Outfall 001*”, Prepare for Powder River Gas; Prepared By Hydrometrics, Inc., May 2002, Received November 1, 2004. The mixing zone extends 25 feet downstream from the point of discharge into the Tongue River. The effluent diffuser shall not exceed two thirds of the channel width at low flow. The permittee shall comply with the following conditions:

i) Provide 30 days written notice to the Department in accordance with Part II.D of this permit, prior to installation of the effluent diffuser in the Tongue River.

ii) The permit shall obtain all necessary permits and comply with applicable rules and regulations regarding stream permitting.

iii) The permittee shall submit as-built plans and specification for the diffuser within 60 days after completion.

4. Nutrient Monitoring

- Prior to issuance of the final permit, the permittee will submit a study plan for department review and approval to assess the periphyton community in accordance with Department's Standard Operating Procedure (SOP - Section 12.0, Revision 0, Date 3/31/99) for Periphyton Composition and Structure (12.1.2.4,) and Standing Crop (12.1.2.3). The permittee will be required to sample three reaches, a reference site upstream of the discharge (below the reservoir) and one site located immediately downstream of the discharge within the mixing zone (within two river widths), and a suitable location below the mixing zone. This condition is necessary to ensure compliance with ARM 17.30.515(1)(g) and the Department's nonsignificance determination (Section VIII). Sampling shall be conducted annually between July 15 and August 15 for the term of the permit.

The following Work Plan is incorporated by reference:

Biological Monitoring Study Plan for Powder River Gas, LLC, Coal Creek Federal Project, Tongue River, October 2004. Received November 1, 2004

The permittee shall prepare an annual report containing all laboratory results, field measurements, and relevant biological metrics for each calendar year. The report shall be submitted, or postmarked no later than the 28th day of the month after that calendar year for which the report is due. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (See Part IV.G of this permit), and submitted to the Department and EPA in accordance with Part II.D of this permit. The permittee may prepare narrative interpretation of the study in accordance with Section 1.2 of the above reference report. This report does not modify the requirement for submittal of an annual report as described in this paragraph.

II. MONITORING RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.
- B. Monitoring Procedures. Monitoring shall be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the acute flow being measured.
- C. Penalties for Tampering. The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six months, or by both.
- D. Reporting of Monitoring Results. Self-monitoring results shall be reported monthly. Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report Form (EPA NO. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. If no discharge occurs during the reporting period, "no discharge" shall be reported on the report form. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (see Part IV.G of this permit), and submitted to the Department at the following addresses:

Montana Department of Environmental Quality
Water Protection Bureau
P.O. Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080

U.S. Environmental Protection Agency
Federal Building
10 West 15th Street, Suite 3200
Helena, MT 59626
Phone: (406) 457-5000

- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.
- G. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;

2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit shall be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall report any serious incidents of noncompliance as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 841-3911. The following examples are considered serious incidents:
 - a. Any noncompliance which may seriously endanger health or the environment:
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities."); or
 - c. Any upset which exceeds any effluent limitation in the permit (See Part III.H of this permit, "Upset Conditions.").
2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause:

- a. The period of noncompliance, including exact dates and times;
 - b. The estimated time noncompliance is expected to continue if it has not been corrected; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24-hours by the Water Protection Bureau, by phone, (406) 444-3080.
 4. Reports shall be submitted to the addresses in Part II.D of this permit, "Reporting of Monitoring Results".
- J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D of this permit are submitted. The reports shall contain the information listed in Part II.I.2 of this permit.
- K. Inspection and Entry. The permittee shall allow the head of the Department or the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:
1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 2. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;
 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department or the Regional Administrator advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.
- B. Penalties for Violations of Permit Conditions. The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than 2 years, or both, for subsequent convictions. MCA 75-5-611(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "Upset Conditions", nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.
- F. Removed Substances. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Any sludges removed from the facility shall be disposed of in accordance with 40 CFR 503, 258 or other applicable rule. EPA and MDEQ shall be notified at least 180 days prior to such disposal taking place.
- G. Bypass of Treatment Facilities:

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2 and III.G.3 of this permit.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I of this permit, "Twenty-four Hour Reporting".
3. Prohibition of bypass.
 - a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part III.G.2 of this permit.
 - b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a of this permit.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e., Permittees will have the opportunity for a judicial determination on any claim

of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limitations).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.I of this permit, "Twenty-four Hour Notice of Noncompliance Reporting"; and
 - d. The permittee complied with any remedial measures required under Part III.D of this permit, "Duty to Mitigate".
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Department as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 µg/l);
 - b. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 µg/l) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d. The level established by the Department in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the

permit, if that discharge will exceed the highest of the following “notification levels”:

- a. Five hundred micrograms per liter (500 µg/l);
- b. One milligram per liter (1 mg/l) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- d. The level established by the Department in accordance with 40 CFR 122.44(f).

IV. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.
- G. Signatory Requirements. All applications, reports or information submitted to the Department or the EPA shall be signed and certified.
 - 1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer:
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Department; and
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)
3. Changes to authorization. If an authorization under Part IV.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2 of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
5. Certification. Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
- H. Penalties for Falsification of Reports. The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water Act, permit applications, permits and effluent data shall not be considered confidential.

- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.
- K. Property or Water Rights. The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
 3. The Department does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2 of this permit; and
 4. Required annual and application fees have been paid.
- N. Fees. The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:
1. Impose an additional assessment consisting of 15% of the fee plus interest on the required fee computed at the rate established under 15-31-510(3), MCA, or
 2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.
- O. Reopener Provisions. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance

schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the department may modify the effluent limits or water management plan.
3. TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.
4. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.
5. Toxic Pollutants: A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

V. DEFINITIONS

1. The "**30-day (and monthly) average**," other than for fecal coliform bacteria is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "**Arithmetic Mean**" or "**Arithmetic Average**" for any set of related values means the summation of the individual values divided by the number of individual values.
3. "**BOD₅**" is the five-day measure of pollutant parameter biochemical oxygen demand.
4. "**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.
5. "**CBOD₅**" is the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.
6. "**Composite samples**" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours not more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
7. A "**Daily Maximum Limit**" specifies the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
8. "**Department**" means the Montana Department of Environmental Quality (MDEQ).
9. "**Discharge**" means the injection, deposit, dumping, spilling, leaking, placing or failing to remove any pollutant so that it or any constituent thereof may enter into state water, including ground water.

10. **"EPA"** means the United States Environmental Protection Agency.
11. A **"grab"** sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
13. An **"instantaneous"** measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
14. **"Load limits"** are mass-based discharge limits expressed in units such as lb/day.
15. A **"mixing zone"** is a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where water quality changes may occur. Also recognized as an area where certain water quality standards may be exceeded.
16. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.
17. **"Process wastewater"** means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product.
18. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
19. **"Sewage Sludge"** is any solid, semi-solid or liquid residue that contains materials removed from domestic sewage during treatment. Sewage sludge includes, but is not limited to, primary and secondary solids and sewage sludge products.
20. The term **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
21. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.